

## NOTES ON THE SYNONYMY OF SOME NEW YORK STATE CHIRONOMIDAE

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Changes in the synonymy of several species of Chironomidae will be made in the forthcoming Catalogue of Insects of New York which may call for an explanation. On a recent visit to the Natural History Museums of Europe I have had the privilege of comparing some of the types of American forms with specimens which I brought with me from America and have thus been able to establish the identity of some species.

In the Natural History Museum of Vienna there are many specimens from the Von Winthem Collection which are said to have been identified by Meigen and in some cases to be the cotypes, hence I have included notes upon such of Meigen's species as are of interest to American entomologists. In Vienna also I saw some of the Say-Wiedemann species. The Staeger and Lundbeck types as well as a few of Fabricius are in the University Museum of Copenhagen. Zetterstedt's types are in the University Museum of Lund, those of Walker in the British Museum. To the museum authorities, Dr. Zerny, Mr. Wm. Lundbeck, Dr. Bengtson, Major Austen and Mr. Edwards, I am under great obligations for courtesies extended.

The figures following authors' names in the notes below refer to volume or page, or both. For bibliographical references see N. Y. State Museum Bul. 86, 1905.

*Ceratopogon basalis* Walker, List, 1: 27. This species and my *J. flaviceps* (Johannsen, N. Y. State Mus., Bul., 124: 268) should be placed as synonyms of *Heteromyia flavipes* Meigen.

*Tanypus tricolor* Loew, Cent., 1: 3. This species belongs to the genus *Coelotanypus* Kieffer as I have determined by an examination of the type in Cambridge, Mass. A specimen of this species from New York is conspecific with the Loew type.

*Tanypus melanops* Wiedemann, Meigen, 1: 65. The Von Winthem specimens in Vienna are like the North American speci-

mens in our collection under this name. *Chironomus unicolor* Walker (1: 19), is a synonym.

*Tanypus nigropunctatus* Staeger, 2: 589. This species is distinctly smaller and more delicate than the American species bearing this name. The fore tarsi of the male are not bearded.

*Chironomus atomarius* Zett. 9: 3522. *Orthocladius atomarius*. This is an *Orthocladius* in the strict sense. In the male specimen from Areskutan the fore basitarsus is  $\frac{2}{3}$  as long as the tibia. The other two specimens in the collection are in poor condition.

*Chironomus sordidellus* Zett. 9: 3521. This species belongs to the genus *Psectrocladius* Keiffer. In the single male specimen from Wilhelmina, Lapland, the wing is milky, the costa is produced beyond the tip of  $R_s$  only about twice the thickness of the costa; the empodium and pulvilli are large and the eyes are bare. The fore basitarsus is broken off. In female specimens of *C. variabilis*, which is regarded as the same species, the fore basitarsus measures .685 the length of the tibia. Of this form there are no males in Zetterstedt's collection. My North American records refer to another species as yet undescribed.

*Chironomus atratulus* Zett. 9: 3590. This species belongs to the genus *Metriocnemus*. There are three males in the collection. The legs are brown; fore basitarsus .57 as long as the tibia; the wings are more or less milky, tips of  $R_s$  and  $Cu_1$ , equidistant from the apex of the wings, cubitus forks slightly distad of the base of the radial sector.

*Metriocnemus lundbecki* Joh. 86: 302. This name was proposed for *M. nana* Lundbeck not Meigen. The N. Y. specimens agree well with the type in Copenhagen.

*Chironomus gmundensis* Egger, Schiner, 2: 597. This is a *Tanytarsus*. The Egger types in Schiner's collection in Vienna agree with my New York specimens. *T. polita* Malloch differs in the form of the dorsal plate of the hypopygium. The fore tarsi of the male are not bearded, the hairs are rather short.

*Chironomus flavellus* Zett. 9: 3584. *Tanytarsus flavellus*. Only the thorax and wings of the type, apparently a male, remain. The cubitus forks slightly distad of the base of the radial sector.

*Chironomus pellucidus* Walker, List, 1: 21. Belongs to the genus *Tanytarsus*. *T. exiguus* Joh. (86: 294) is a synonym.

*Chironomus trichomerus* Walker, List, 1: 21. This is a *Tanytarsus*. It will find a place in my key near *flavellus* but it differs in having the cubitus fork very distinctly distad of the base of the radial sector. The type is a female. The fore basitarsus measures 2.12 times the tibia in length.

*Chironomus albimanus* Meigen. The Von Winthem specimens in the Vienna collection agree with the North American forms.

*Chironomus albistria* Walker, List, 1: 17. This species goes to *neomodestus* Malloch in Malloch's key (Bul. Ill. State Lab. of N. H. 10: 424, 1915) but differs in being much larger. The thoracic stripes are reddish brown. The posterior part of the abdomen and the tarsal segments 2 to 5 are missing in the type. The fore basitarsus measures 1.7 times the tibia in length. The N. Y. species mentioned under this name is *quadripunctatus* Malloch.

*Chironomus annularis* DeG. Mr. F. W. Edwards, who has seen the type, considers this species identical with *C. plumosus* L.

*Chironomus attenuatus* Walker, List 1: 20. The specimen in the British Museum labelled type is a female with yellow thorax marked with three brown stripes. This does not agree with Walker's description. The fore legs are broken. The species recorded from New York state under this name is undescribed.

*Chironomus brevitibialis* Zett. 9: 3537. There are several specimens in the collection at Lund. A male labelled Hoburg 6 Jul, has the proportions of the fore leg segments, femur, tibia, and basitarsus as 8: 9.5: 12.5. Some other specimens measured gave approximately the same ratios. This is not in agreement with Van der Wulp's description reproduced by me in the New York State Museum bulletin 86, page 226. In the types the forceps are rather elongate, the inferior pair measuring about two-thirds the length of the superior, resembling those of *modestus* Say. The species may not occur in America. It most closely resembles *abortivus* Malloch and *dus* Joh., but differs from them in tarsal proportions and other details.

*Chironomus brunnipes* Zett. 9: 3518. A male specimen from Areskutan and a pair from Faxelfven are in the collection at

Lund. The fore basitarsus measures 1.4 times the tibia in length in the first mentioned specimen.

*Chironomus dorsalis* Meigen. Among the Von Winthem specimens in the collection in Vienna are three males. In these the fore basitarsi are sparsely but distinctly long haired. The specimen in the collection in Paris is said to be in fragments. The species in Vienna most closely resembles *C. maturus* Joh., but differs in size and coloring. My North American records of *C. dorsalis* should be referred to *C. cayuga* Joh.

*Chironomus flavicingula* Walker. List I: 20. My New York specimens agree perfectly with the type in the British Museum.

*Chironomus festivus* Say. Wiedemann's specimen of this species is in the museum in Vienna. Only a fragment of what appears to be a male specimen remains. There is no black line on the thorax. It resembles *glaucurus* Wied. (*stigmaterus* Say) in coloring.

*Chironomus ferrugineo-vittatus* Zett. 9: 3492. There are male and female specimens in the collection in Lund. The hairs on the fore tarsi of the female are much shorter than the diameter of the tarsi in all three cotypes, agreeing in this particular with my New York specimens. The distinction which Kieffer gives for separating this species from *C. plumosus* does not hold. I agree with Mr. Edwards in considering it a pale variety of *plumosus*.

*Chironomus hilaris* Walker. List 1: 17. *C. nephoterus* Mitchell is the same species.

*Chironomus lobiferus* Say. Only a fragment of head and thorax remains of Wiedemann's specimen of this species in Vienna. In coloring, it agrees with my specimens from New York.

*Chironomus meridionalis* Joh. N. Y. State Mus. Bul. 124: 277. This is correctly placed as a variety of *hyperborealis* Staeger. It is perhaps scarcely entitled to varietal rank. I compared my specimen with the type in Copenhagen.

*Chironomus modestus* Say. Only a fragment remains of Wiedemann's specimen of this species in the collection in Vienna. In coloring, and in the proportion of fore basitarsus to tibia, it agrees with my specimen determined as *modestus*.

*Chironomus nubeculosus* Meigen. In the collection in Vienna the Von Winthem and Von Frauenfeld specimens have hairy fore tarsi in the male and the wing spots are exceedingly faint. Schiner's specimens in Vienna, Staeger's in Copenhagen, and those recorded by me in N. Y. State Bulletin (124: 278) agree in having nearly bare fore tarsi and in having distinct wing spots. Which one is identical with Meigen's specimen remains to be determined.

*Chironomus prasinus* Meigen. *Chironomus intermedius* Staeger is considered a synonym of this species. The Staeger type in the museum in Copenhagen resembles *plumosus* except for size, hence probably identical, as Edwards and others have already assumed.

*Chironomus riparius* Meigen. There are several specimens in the collection in Vienna, but only one, and that one a female, from Von Winthem. My specimens from New York do not differ.

*Chironomus stigmaterus* Say. This is *C. glaucurus* Wiedemann (1: 15) of which there is one male from Pennsylvania in the Vienna collection obtained by Wiedemann from Say. The fore tarsi are hairy and the basitarsus is about  $1/3$  longer than the tibia. It agrees with Malloch's characterization of the species.

*Chironomus tenellus* Zett. 9: 3517. The types, from Jemtland-Mulfjellet, are in the museum in Lund. The fore tarsi are not bearded, the basitarsus is  $1/3$  longer than the tibia. The species is correctly placed in my key (Bul. 86: 193).

*Chironomus tentans* Fabr. The types in the collection in Copenhagen consist of two female specimens which do not differ from my specimens from the United States in coloring. In the collection are several male specimens named by Staeger. These resemble our own in having enlarged claspers as figured by Goetghebuer (Chir. de Belgique, 1921, page 145). The species from Europe and America are no doubt identical. The male specimens in the Zetterstedt collection in Lund likewise have enlarged claspers of similar structure. The Frauenfeld and Brauer specimens in Vienna have small claspers and differ in other particulars.